WHAT IS CLAIMED IS:

1. A system for use in a telephone network transmitting packets, the system comprising:

means for setting a transmit bit in an outgoing packet and for starting a timer at the setting of the transmit bit; and

means for reading a receive bit in a received packet and for stopping the timer in response to the reading of a set receive bit in the received packet.

2. The system of claim 1 further comprising:

means for transmitting the outgoing packet.

3. The system of claim 1 further comprising:

means for reading a set transmit bit in the received packet; and

means for setting a receive bit in the outgoing packet in response to the means for reading the set transmit bit in the received packet.

4. The system of claim 1 further comprising:

a round trip register; and

means for inserting a value from the timer into the round trip register.

5. The system of claim 4 further comprising:

means for comparing the value in the round trip data register to a predetermined value; and

means for sending a delay report to a user when the value in the round trip data register is greater than the predetermined value.

6. A field programmable gate array for use in a telephone system transmitting packets, the field programmable gate array comprising:

means for setting a transmit bit in an outgoing packet and for starting a timer at the setting of the transmit bit; and

means for reading a receive bit in a received packet and for stopping the timer in response to the reading of a set receive bit in the received packet.

7. The field programmable gate array of claim 6 further comprising:

means for transmitting the outgoing packet.

8. The field programmable gate array of claim 6 further comprising:

means for reading a set transmit bit in the received packet; and

means for setting a receive bit in the outgoing packet in response to the means for reading the set transmit bit in the received packet.

9. The field programmable array of claim 6 further comprising:

a round trip register; and

means for inserting a value from the timer into the round trip register.

10. The field programmable array of claim 9 further comprising:

means for comparing the value in the round trip data register to a predetermined value; and

means for sending a delay report to a user when the value in the round trip data register is greater than the predetermined value.

11. A system for use in timing the transmission of voice packets through a telephone network, said system comprising the steps of:

means for constructing an outgoing first voice packet;

means for setting a transmit bit in the first voice packet;

a timer; and

means for starting the timer upon the setting of the transmit bit.

12. The system of claim 11 further comprising:

means for transmitting the first voice packet.

13. The system of claim 11 further comprising:

means for receiving a second voice packet;

means for checking the second voice packet to determine if a receive bit is set; and

means for stopping the timer if the receive bit is set.

14. The system of claim 13 further comprising:

a round trip data register; and

means for inserting a value from the timer into the round trip data register.

15. The system of claim 14 further comprising:

means for comparing the value in the round trip data register to a predetermined value; and

means for sending a delay report to a user when the value in the round trip data register is greater than the predetermined value.

16. The system of claim 11, further comprising:

means for receiving a second voice packet;

means for checking the second voice packet to determine if the transmit bit is set;

means for constructing a third voice packet; and

means for setting a receive bit in the third voice packet if the transmit bit is set.

17. The system of claim 16 further comprising:

means for transmitting the third voice packet.

18. A method for use in timing the transmission of voice packets through a telephone system, said method comprising the steps of:

constructing an outgoing first voice packet;

setting a transmit bit in the first voice packet; and

starting a timer upon the setting of the transmit bit.

19. The method of claim 18 further comprising the step of:

transmitting the first voice packet.

20. The method of claim 18 further comprising the steps of:

receiving a second voice packet;

checking the second voice packet to determine if a receive bit is set; and

stopping the timer if the receive bit is set.

21. The method of claim 20 further comprising the step of:

inserting a value from the timer into a round trip data register.

22. The method of claim 21 further comprising the steps of:

comparing the value in the round trip data register to a predetermined value; and

sending a delay report to a user when the value in the round trip data register is greater than the predetermined value.

23. The method of claim 18, further comprising the steps of:

receiving a second voice packet;

checking the second voice packet to determine if the transmit bit is set;

constructing a third voice packet; and

setting a receive bit in the third voice packet if the transmit bit is set.

24. The method of claim 23 further comprising the step of:

transmitting the third voice packet.

25. A system for use in a telephone system having telephone cabinets, each telephone cabinet having a link for linking the cabinet to a network, said system comprising:

a timer;

a transmitting protocol state machine comprising

means for assembling a first voice packet from voice samples, said first voice packet including a receive bit and a transmit bit;

means for setting the transmit bit in the first voice packet;

means for starting the timer upon the setting of the transmit bit; and

means for transmitting the first voice packet;

a receiving protocol state machine comprising

means for receiving a second voice packet, said second voice packet including a receive bit and a transmit bit;

means for reading the receive bit and the transmit bit in the second voice packet;

means for setting the receive bit on the first voice packet assembled by the transmitting protocol state machine in response to reading a set transmit bit in the second voice packet; and

means for stopping the timer in response to reading a set receive bit.

26. The system of claim 25 wherein the means for starting the timer further comprises:

means for starting the timer when transmitting the first voice packet.

27. The system of claim 25 further comprising:

a round trip data register, wherein the receiving protocol state machine further comprises

means for inserting a value of the timer into the round trip data register.

28. The system of claim 25 wherein the means for assembling in the transmitting protocol state machine further comprises:

means for assembling a first voice packet from voice samples following an internet protocol.

29. The system of claim 25 wherein the receiving protocol state machine further comprises:

means for receiving voice packets that follow an internet protocol; and

means for converting the voice packets into voice samples.

30. The system of claim 25 wherein the network is a local area network.

31. The system of claim 25 wherein the network is an internet.

32. A cabinet for use in a telephone network transmitting packets, the cabinet comprising:

a link for communicating with external devices, said link comprising

means for setting a transmit bit in an outgoing packet and for starting a timer at the setting of the transmit bit; and

means for reading a receive bit in a received packet and for stopping the timer in response to the reading of a set receive bit in the received packet; and

means for connecting to a set of telephones.

33. The cabinet of claim 32 wherein the link further comprises:

means for transmitting the outgoing packet.

34. The cabinet of claim 32 wherein the link further comprises:

means for reading a set transmit bit in the received packet; and

means for setting a receive bit in the outgoing packet in response to the means for reading the set transmit bit in the received packet.

35. The cabinet of claim 32 wherein the link further comprises:

a round trip register; and

means for inserting a value from the timer into the round trip register.

36. The cabinet of claim 35 wherein the link further comprises:

means for comparing the value in the round trip data register to a predetermined value; and

means for sending a delay report to a user when the value in the round trip data register is greater than the predetermined value.